UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF INDIANA
SOUTH BEND DIVISION

RONALD SCHMUCKER, et al.,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Case No. 3:14-CV-1593 JD
	)	
JOHNSON CONTROLS, INC., et al.	)	
	)	
Defendants.	)	

OPINION AND ORDER

This is an environmental action arising out of contamination from a former Johnson Controls manufacturing facility. Five individuals who own or live in property next to the facility sued Johnson Controls under the Resource Conservation and Recovery Act. They first allege that Johnson Controls is violating its obligations under that Act because it hasn't finished remediating the contamination. They also allege that the contamination, which has spread into their neighborhood and beyond, threatens health and the environment. Exhaustive discovery ensued and has now closed, and both sides moved for summary judgment. The parties also filed numerous related motions, including five motions to strike or exclude expert testimony.

The Court finds that summary judgment is warranted in Johnson Controls' favor on the claim that it is in violation of the Act. Johnson Controls has complied with the requirements imposed by the regulations and the implementing agency, and the Plaintiffs' arguments to the contrary fail as a matter of law. However, the Court finds that factual disputes preclude summary judgment for either side on the claim that the contamination may present an imminent and substantial endangerment. The Court also resolves the expert motions in part, but reserves ruling in part until trial.

I. FACTUAL BACKGROUND

The Resource Conservation and Recovery Act was passed in 1976, and enacted a broad range of policies and procedures to control the disposal of solid and hazardous waste. *Meghrig v. KFC W., Inc.*, 516 U.S. 479, 483 (1996); *Adkins v. VIM Recycling*, 644 F.3d 483, 486 (7th Cir. 2011). Subchapter III of the Act addresses hazardous wastes in particular, and empowers the environmental agencies "to regulate hazardous wastes from cradle to grave[.]" *City of Chicago v. Envtl. Def. Fund*, 511 U.S. 328, 331–32 (1994). As relevant here, the Act required all facilities involved in treating, storing, or disposing of hazardous wastes to obtain permits, and subjected those facilities to stringent regulation. *Id.* Facilities that only generated hazardous wastes were regulated as well, but not nearly as stringently. *Id.*

Because the permits for treatment, storage, and disposal facilities would take years to process, the statute and regulations created a two-step process for existing facilities to become permitted. First, the facility would submit a Part A application. Upon submitting that application, the facility is deemed an "interim status" facility. 42 U.S.C. § 6925(e). The facility could then either submit a Part B application in order to receive a permit to continue operating as a treatment, storage, and disposal facility, or it could stop its treatment, storage, and disposal activities and undergo closure. Roughly speaking, closure is a process defined by the regulations by which a facility shuts down each hazardous waste management unit at the facility, removes hazardous waste from the units, and decontaminates the units to the extent necessary to prevent post-closure releases of hazardous waste.

Johnson Controls operated a manufacturing facility in Goshen, Indiana for many years, making parts for thermostats and building controls systems. Its manufacturing process included the use of chlorinated solvents, including trichloroethylene (TCE), in the degreasing of metal parts. Due to its use of those chemicals, the facility's operations qualified it as a treatment,

storage, or disposal facility under the Act. Thus, in October 1980, Johnson Controls filed its Part A application. The United States Environmental Protection Agency later confirmed that the facility qualified as an interim status facility. In 1988, Johnson Controls notified the Indiana Department of Environmental Management (which had since been authorized to implement the Act in Indiana) that it intended to undergo closure instead of submitting a Part B application and seeking a permit. In February 1991, it submitted a closure plan in which it identified four hazardous waste management units that would have to undergo closure, and outlined the steps that it would take to complete closure. In March 1991, after a period for public comment, IDEM approved Johnson Controls' closure plan.

While conducting sampling pursuant to the approved closure plan, Johnson Controls discovered contamination of TCE and other chlorinated Volatile Organic Compounds in onsite soil and groundwater. It then discovered that a plume of contamination extended off the site to the northwest, into a neighborhood that was immediately adjacent to the facility. High levels of TCE were found in well water in some of those homes' private wells, so Johnson Controls arranged for each of those homes to be connected to the municipal water supply.

In the meantime, Johnson Controls completed closure of one of its hazardous waste management units and submitted a certification to that effect, which IDEM accepted in April 1992. It then continued to investigate the remaining contamination under IDEM's oversight. In August 1996, Johnson Controls entered an agreement with IDEM to participate in its Voluntary Remediation Program in order to investigate and remediate the existing contamination. In August 1998, Johnson Controls submitted a revised closure plan for its three remaining hazardous waste management units. As agreed to during a previous meeting with IDEM, that plan defined the scope of the units as the boundaries of the units or their buildings, to a depth of

one foot. Thus defined, two of the units contained no contamination and required no further closure activities. For a third unit, Johnson Controls proposed removing the concrete floor, excavating the underlying soil to a depth of 1.5 feet, inserting a plastic liner, filling it with gravel, and then replacing the concrete floor. As also previously discussed with IDEM, the closure plan specified that the remaining contamination outside of those units would be addressed through the Voluntary Remediation Program instead of as part of the closure process.

After allowing a period for public comment, IDEM approved Johnson Controls' closure plan in February 1999. Johnson Controls thereafter completed each of the activities set forth in the approved closure plan. In March 2000, Johnson Controls submitted a certification that each of the waste management units at the facility had been closed in accordance with the approved closure plan, and that no further closure activities were required. In an August 2000 letter, IDEM accepted Johnson Controls' certification of closure and stated that "total closure is completed." [DE 294-25]. The letter noted, though, that IDEM's acceptance of closure was "conditional with the expectation that Johnson Controls Inc. will address the remaining contamination beneath the closed hazardous waste management units via the Voluntary Remediation Program." *Id.* Johnson Controls ceased its operations at the site in 2006, after which it sold to the property to Tocon Holdings, LLC. Tocon later tore down each of the buildings at the site, which now sits vacant.

Throughout this time, Johnson Controls continued to participate in the Voluntary Remediation Program under IDEM's oversight and has engaged in various remediation and mitigation activities. From 2000 to 2012, Johnson Controls operated a groundwater "pump and treat" system that removed several tons of contaminants from the groundwater. Johnson Controls also performed other remediation activities at the site, including excavating 31 tons of contaminated soil from the site in 2001. More recently, in 2015, Johnson Controls used

"emulsified zero-valent iron" remediation to address contamination in the soil at two small areas at the site. And most recently, in 2017, Johnson Controls implemented a pilot program intended to remediate shallow groundwater. It used "in-situ enhanced reductive dechlorination," in which substances are injected to the groundwater in order to break down the TCE.

Substantial contamination still exists both on and off the site, though. The soil at the site still contains contamination. A plume of contamination is also present in the shallow groundwater, which is about fifteen feet below ground. The plume extends to the west and northwest of the site, through the Plaintiffs' neighborhood and under the Plaintiffs' homes. As the contamination moves farther from the site, it also extends deeper into the ground. While the shallow groundwater contamination consists mostly of TCE, the deeper contamination consists more of TCE's breakdown products, including vinyl chloride. The contamination in the deep groundwater is of concern because the city's wellfield draws water from that aquifer. The parties' experts disagree on whether contamination from the Johnson Controls site may ever reach the wellfield, though. The city wells are about a mile to the northwest of the Johnson Controls site, but they draw water predominantly from the northeast, as that is the direction from which the groundwater generally flows.

Another concern presented by the contamination is vapor intrusion. Contamination in the shallow groundwater can volatize into vapor and can migrate up to the surface, where it can enter indoor air. In 2011, Johnson Controls began testing area homes for vapor intrusion. In fifteen homes, TCE was detected above IDEM's indoor air screening level. Accordingly, Johnson Controls had vapor mitigation systems installed in each of those homes. Johnson Controls tested those homes again after the systems were installed to make sure they were working, but most of those homes were not tested again until 2018. At that time, TCE was detected in two of the

homes, but below IDEM's screening level. Johnson Controls has tested various other homes and commercial buildings over the years, but does not believe any structures other than those fifteen homes require mitigation systems. The map below shows the Johnson Controls site, the Plaintiffs' neighborhood, the plume of shallow groundwater contamination as identified by Johnson Controls' expert, the area of vapor intrusion impact as identified by the Plaintiffs' expert, and the properties with vapor mitigation systems:

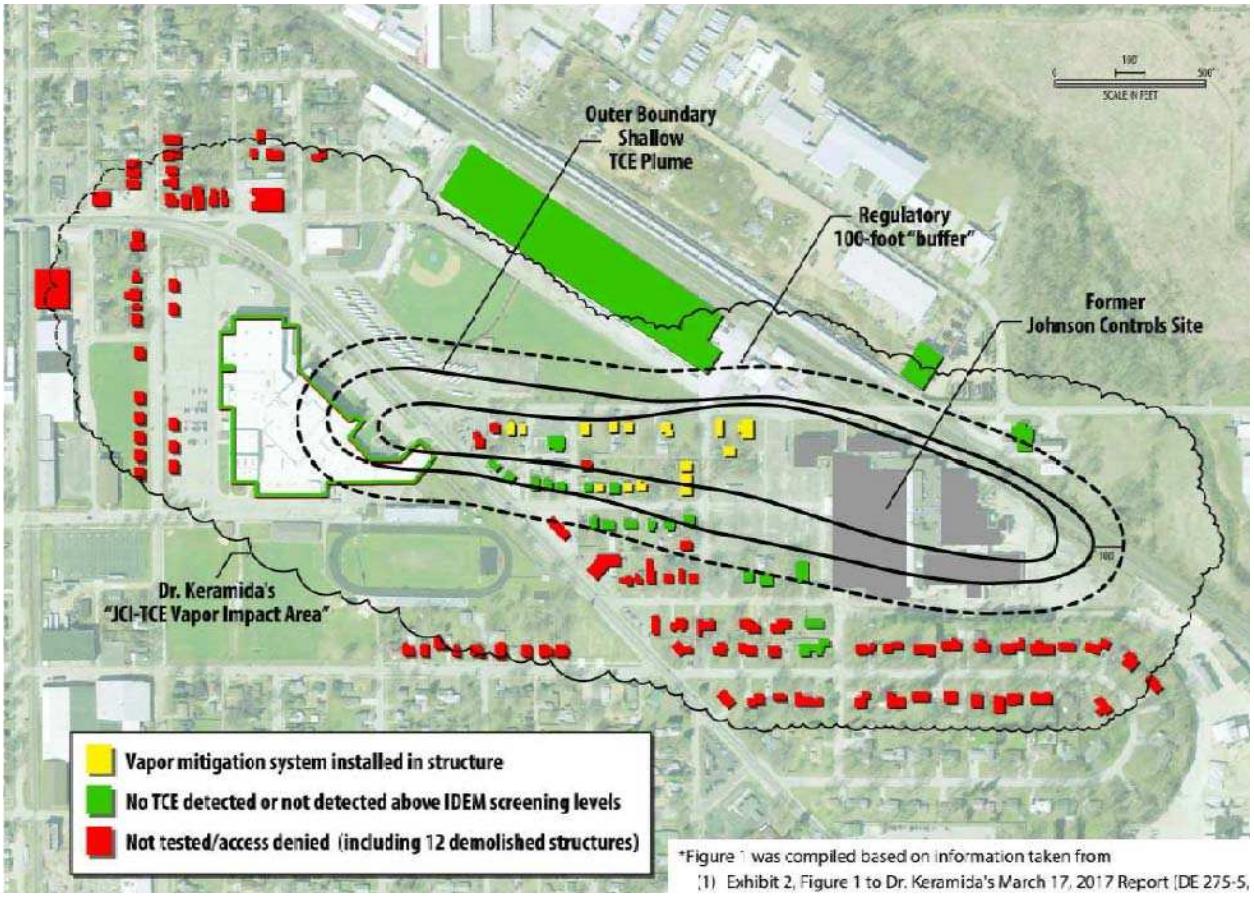

*Figure 1 was compiled based on information taken from
(1) Exhibit 2, Figure 1 to Dr. Keramida's March 17, 2017 Report [DE 275-5,

The Plaintiffs here are five individuals associated with three properties near the site, each of which have vapor mitigation systems due to the previous detections of TCE. Richard Stewart owns and is the landlord of a house immediately adjacent to the Johnson Controls site. Stephen and Lori VanDiepenbos live in the house next door. Ronald and Sonya Schmucker own and are the landlords of the house across the street from them. In May 2004, the Plaintiffs sued Johnson

Controls, asserting claims under the Resource Conservation and Recovery Act. (They also sued Tocon, but Tocon has not participated in this action in some time.) Extensive discovery ensued, for which the magistrate judge appointed a special master. That entailed extensive expert discovery, with two retained experts for the Plaintiffs and six retained experts for Johnson Controls. Discovery has now closed, and both sides have filed motions for summary judgment, which are fully briefed.

II. ANCILLARY MOTIONS

Before resolving the motions for summary judgment, the Court addresses a number of other pending motions.

A. Motion to Exclude Dr. Keramida's Opinions

Johnson Controls moves to exclude opinions by Dr. Vasiliki Keramida, a retained expert for the Plaintiffs. Dr. Keramida has advanced degrees in environmental engineering. She has taught courses in environmental engineering; she spent six years leading environmental programs for the City of Indianapolis; and for the last thirty years, she has led her own firm that provides sustainability, environmental, remediation, and health and safety services. She has served as project manager for hundreds of projects involving the assessment and remediation of industrial and commercial properties. She has also served on various regulatory advisory committees, assisting the EPA and IDEM in developing guidelines and regulations.

As relevant here, Dr. Keramida opined that contamination from the Johnson Controls facility present an imminent and substantial endangerment to human health and the environment. She first opined that the contamination presents an endangerment through the threat of vapor intrusion, as shown by the high concentrations of TCE in the groundwater and soil, and tests showing that TCE was present in the indoor air of homes in the neighborhood. She also opined that the vapor mitigation systems installed in those homes are not sufficient to abate the

endangerment. She next opined that the contamination presents an endangerment due to its presence in the groundwater, from which private wells might draw water for drinking or irrigation. She also concluded that the contamination presents an endangerment to the environment because it may reach the city's wellfield. She contended that these risks are substantial because the contamination exceeds levels developed by the EPA to protect human health. Finally, Dr. Keramida outlined the remedial actions that she believes need to occur to reduce the contamination to levels protective of health and the environment.[1]

Johnson Controls moves to exclude all of those opinions. Rule 702 governs the admission of testimony by expert witnesses. Under that rule, a witness "who is qualified as an expert by knowledge, skill, experience, training, or education" may offer an opinion if the following criteria are met:

> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
>
> (b) the testimony is based on sufficient facts or data;
>
> (c) the testimony is the product of reliable principles and methods; and
>
> (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. A court has a gatekeeping role to ensure that expert testimony meets these criteria. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993); *C.W. ex rel. Wood v. Textron, Inc.*, 807 F.3d 827, 834–35 (7th Cir. 2015). As the Seventh Circuit has emphasized, though, a court does not assess "'the ultimate correctness of the expert's conclusions.'" *Textron*, 807 F.3d at 834 (quoting *Schultz v. Akzo Nobel Paints, LLC*, 721 F.3d 426, 431 (7th Cir. 2013)).

[1] Dr. Keramida also opined that Johnson Controls is violating its obligations under the Act, but she relied on a legal premise that the Court rejects, and the meaning of a statute or regulation is not subject to expert testimony. *Aguirre v. Turner Const. Co.*, 582 F.3d 808, 814 (7th Cir. 2009); *Good Shepherd Manor Found., Inc. v. City of Momence*, 323 F.3d 557, 564 (7th Cir. 2003).

Rather, a court must focus "solely on principles and methodology, not on the conclusions they generate." *Schultz*, 721 F.3d at 432 (quoting *Daubert*, 509 U.S. at 595). "So long as the principles and methodology reflect reliable scientific practice, 'vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.'" *Id.* (quoting *Daubert*, 509 U.S. at 596).

There is another consideration to take into account in addressing the *Daubert* motions, in that the case will be tried in a bench trial. Though the Plaintiffs' complaint demands a jury trial, the basis for that demand was the availability of civil penalties as a remedy for their claim under § 6972(a)(1)(A). [DE 61]. As explained below, the Court grants summary judgment in Johnson Controls' favor on that claim for reasons unaffected by any expert testimony. The remaining claim, under § 6972(a)(1)(B), permits only injunctive relief. 42 U.S.C. § 6972(a) (authorizing "any appropriate civil penalties under section 6928(a) and (g)," each of which require a violation); *City of Evanston v. N. Ill. Gas Co.*, 229 F. Supp. 3d 714, 724 (N.D. Ill. 2017) (holding that civil penalties are not available for subsection (a)(1)(B) claims, and collecting cases to that effect). Therefore, the remaining claim will be tried in a bench trial.

That does not change the standard of review—the testimony must still satisfy Rule 702. *Metavante Corp. v. Emigrant Sav. Bank*, 619 F.3d 748, 760 (7th Cir. 2010). It does, however, impact when the Court needs to make that finding. "Where the gatekeeper and the factfinder are one and the same—that is, the judge—the need to make such decisions prior to hearing the testimony is lessened." *In re Salem*, 465 F.3d 767, 777 (7th Cir. 2006). The Seventh Circuit has thus held that when "a trial judge conducts a bench trial, the judge need not conduct a *Daubert*

(or Rule 702) analysis before presentation of the evidence[.]" *Kansas City S. Ry. Co. v. Sny Island Levee Drainage Dist.*, 831 F.3d 892, 900 (7th Cir. 2016).

Given the scope of Dr. Keramida's opinions and the complexity of the underlying issues, the Court takes that approach here in part. As discussed below, the Court denies summary judgment on the endangerment claim on the basis of the threat of vapor intrusion. The Court therefore limits its analysis at this time to Dr. Keramida's opinions on that topic, specifically the threat of vapor intrusion by TCE at properties that have previously had TCE detected in their indoor air. The Court also addresses her opinions as to the appropriate remedy, as Johnson Controls seeks summary judgment in that regard as well. As to the rest of her opinions, the Court dismisses the motion to exclude and will allow the parties to address the opinions' admissibility in conjunction with trial.

In moving to exclude Dr. Keramida's opinions as to vapor intrusion, Johnson Controls first argues that Dr. Keramida improperly relied on past data reflecting the presence of TCE in indoor air, instead of more recent data since the vapor mitigation systems were installed.[2] Johnson Controls is correct that the focus of an endangerment claim is the present risk, not purely past risks. *Meghrig*, 516 U.S. at 488. However, the past data upon which Dr. Keramida relied is probative of the present risk for several reasons. First, it shows that the levels of TCE in the ground are sufficient to cause vapor intrusion in these homes, and that pathways are present to allow the TCE to enter the homes. Second, the groundwater in the Plaintiffs' neighborhood has not been remediated, and Dr. Keramida opined that the vapor levels in the soil remain high.

[2] In challenging Dr. Keramida's vapor intrusion opinions, Johnson Controls also argues that she had no basis upon which to opine that a risk was present in all structures within the "cloud" she identified as the area subject to contamination from the site. The Court does not reach those arguments, though, as it confines its analysis to the homes where vapor intrusion has been detected.

This evidence thus provides Dr. Keramida a basis to conclude that the vapors are capable of entering the homes in similar amounts today. In fact, even one of Johnson Controls' experts could not say that no endangerment would exist if the vapor mitigation systems were not working.

Of course, mitigation systems have been installed, and subsequent tests have not detected TCE at the same amounts as before. However, those tests do not prove conclusively that vapor intrusion is neither occurring nor threatened. As Dr. Keramida discussed, those tests are fallible, due in part to the spatial and temporal variability of vapor intrusion. In addition, Dr. Keramida offers reasons to doubt whether the mitigation systems are sufficient to obviate the risk. Dr. Keramida notes that environmental agencies generally view mitigation systems as interim measures, in part because they are subject to failure. She also notes that the systems here have experienced interruptions on multiple occasions, and she opines that they were not designed or installed properly.[3] If the systems are not working, the existing threat of vapor intrusion may still present an endangerment. Johnson Controls is free to argue at trial that the Court should not credit Dr. Keramida's opinion, but she has adequately explained why she concludes that an endangerment still exists even in light of subsequent testing and mitigation, so the Court declines to exclude her opinion on that basis.

Johnson Controls next argues that Dr. Keramida offers no basis to evaluate whether the risk is substantial, as she relied on regulatory guidelines for acceptable levels of contaminants. Johnson Controls argues that her conclusions were flawed because agency screening levels are

[3] Johnson Controls also argues that this opinion contradicts Dr. Keramida's opinion that, as a preventative measure, vapor mitigation systems should be installed in all homes in the area. Those opinions are not mutually exclusive, though; it is possible to say that the systems are not effective enough to obviate any endangerment, but that they are still better than nothing until the contamination giving rise to that endangerment has been remediated.

not probative of human health risk. The Court declines to exclude Dr. Keramida's opinion on that basis. It is true that regulatory screening levels do not govern endangerment claims, meaning that exceeding a screening level does not conclusively establish a substantial endangerment, just as complying with screening levels does not foreclose such a finding. *Interfaith Cmty. Org. v. Honeywell Int'l, Inc.*, 399 F.3d 248, 261 n.6 (3d Cir. 2005) (holding that agency "standards do not define a party's federal liability under RCRA"); *Simsbury-Avon Pres. Club, Inc. v. Metacon Gun Club, Inc.*, 575 F.3d 199, 212–13 (2d Cir. 2009). That is not to say, however, that they are irrelevant. Indeed, courts have often considered agency screening levels in deciding whether a substantial endangerment exists. *E.g.*, *Burlington N. & Santa Fe Ry. Co. v. Grant*, 505 F.3d 1013, 1022 (10th Cir. 2007); *Interfaith*, 399 F.3d at 261 ("Proof of contamination in excess of state standards may support a finding of liability, and may alone suffice for liability in some cases, but its required use is without justification in the statute."); *Raymond K. Hoxsie Real Estate Tr. v. Exxon Educ. Found.*, 81 F. Supp. 2d 359, 366 (D.R.I. 2000) (collecting cases).

Dr. Keramida explains based on her experience that the agencies consult toxicological literature in order to set screening levels at concentrations that are not expected to produce unacceptable risks of cancer and other health conditions. She concludes that because contamination here greatly exceeds those levels, the contamination may present a substantial endangerment to health. That those screening levels are not conclusive as to an endangerment claim does not mean that they are not relevant.[4] And more to the point, that does not mean that

[4] Even *Simsbury-Avon*, 575 F.3d at 214, on which Johnson Controls relies, refused to hold that regulatory standards were never relevant to a determination of whether a risk is potentially serious. It rejected the use of screening standards in that case because they were based on an assumption of long-term exposure to the contaminants, but there was no evidence that anyone would be subject to long-term exposure—the site was a shooting range, not a residence. *Id.* at 213.

an expert cannot reasonably rely on them as probative of whether certain levels of contamination may present an imminent and substantial endangerment. Johnson Controls is free to argue that the agencies' analysis is unsound, that the levels are based on conservative assumptions not applicable here, or that they are otherwise flawed or inapplicable, but the Court declines to exclude Dr. Keramida's opinion on that basis.

Finally, Johnson Controls moves to exclude Dr. Keramida's opinions about the remedy the Court should impose should it conclude that an endangerment exists. The sole basis for Johnson Controls' motion is that Dr. Keramida failed to take into account certain factors that the EPA considers in selecting a RCRA remedy. Johnson Controls cites no authority that the Court is bound by those factors in ordering relief under a subsection (a)(1)(B) claim, though, so it has not shown why Dr. Keramida's opinions should be excluded on that basis. Upon a finding that contamination may present an imminent and substantial endangerment, the Act authorizes the Court to order any "action as may be necessary." 42 U.S.C. § 6972(a). Courts also consider the factors that govern permanent injunctions. *See LAJIM, LLC v. Gen'l Elec. Co.*, No. 13 CV 50348, 2017 WL 392139, at *2 (N.D. Ill. Sept. 7, 2018). Johnson Controls cites no authority that requires a Court to consider the factors that the EPA might consider in implementing corrective actions, so even if Dr. Keramida failed to consider all of those factors, that would not render her opinions inadmissible.

Accordingly, the Court denies Johnson Controls' motion in those respects, and will consider the admissibility of Dr. Keramida's remaining opinions in conjunction with trial.

B. Motions to Strike Dr. Keramida's Supplemental Reports

Johnson Controls also filed two motions to strike supplemental reports by Dr. Keramida on the basis that they are untimely attempts to bolster her previous opinions and offer new opinions. Dr. Keramida signed her initial report in March 2017, and wrote a short supplement the

following month, after which she sat for a deposition in November 2017. Johnson Controls' experts responded to the opinions Dr. Keramida expressed in those materials, and discovery closed in December 2017. The parties filed their *Daubert* motions in January 2018, and those motions were ripe by April. In the meantime, the parties also filed their motions for summary judgment. In their response to Johnson Controls' motion for summary judgment, the Plaintiffs attached a new, 30-page report by Dr. Keramida. This third report purports to supplement Dr. Keramida's initial opinions in light of new data, and to rebut supplemental opinions by one of Johnson Controls' experts.

Johnson Controls' response to the Plaintiffs' motion for summary judgment also included a declaration from one of its environmental consultants. The declaration primarily presented data showing the results of a pilot test that Johnson Controls had conducted to remediate shallow groundwater at the site. Johnson Controls cited that declaration numerous times in its statement of facts, asserting that the pilot test had reduced TCE concentrations in some areas by over 99 percent. Thus, in their reply brief, the Plaintiffs attached another new report by Dr. Keramida—her fourth report—in which she offered rebuttal opinions in response to that declaration.

Johnson Controls moves to strike Dr. Keramida's third and fourth reports, contending that they untimely disclose new opinions and are not proper supplements or rebuttal reports. Under Rule 26(a)(2), a retained expert witness must provide a written report that contains, among other items, "a complete statement of all opinions the witness will express and the basis and reasons for them[.]" Fed. R. Civ. P. 26(a)(2)(B)(i). The rules also require a party to "supplement or correct" this disclosure "in a timely manner if the party learns that in some material respect the disclosure . . . is incomplete or incorrect[.]" *Id.* R. 26(e)(1)(A). However, "'the purpose of supplementary disclosures is just that—to supplement. Such disclosures are not

intended to provide an extension of the expert designation and report production deadline.'" *In re Ready-Mixed Concrete Antitrust Litig.*, 261 F.R.D. 154, 159 (S.D. Ind. 2009) (quoting *Metro Ford Truck Sales, Inc. v. Ford Motor Co.,* 145 F.3d 320, 324 (5th Cir. 1998)). "'Although [Rule] 26(e) requires a party to 'supplement or correct' [a] disclosure upon information later acquired, that provision does not give license to sandbag one's opponent with claims and issues which should have been included in the expert witness' report[.]'" *Allgood v. Gen'l Motors Corp.*, No. 1:02-cv-1077-DFH, 2007 WL 647496, at *3 (S.D. Ind. Feb. 2, 2007) (quoting *Beller v. United States*, 221 F.R.D. 689, 695 (D.N.M. 2003)). If a party fails to timely disclose or supplement expert opinions, those opinions cannot be used "unless the failure was substantially justified or is harmless." Fed. R. Civ. P. 37(c)(1).

The rules also contemplate that experts may prepare rebuttal reports that are "intended solely to contradict or rebut evidence on the same subject matter" by an opposing expert. Fed. R. Civ. P. 26(a)(2)(D). "'The proper function of rebuttal evidence is to contradict, impeach or defuse the impact of the evidence offered by an adverse party.'" *Peals v. Terre Haute Police Dep't*, 535 F.3d 621, 630 (7th Cir. 2008) (quoting *United States v. Grintjes*, 237 F.3d 876, 879 (7th Cir. 2001)). "A rebuttal expert report cannot be used to advance new arguments or new evidence to support plaintiff's expert's initial opinions." *Lowe v. CVS Pharmacy, Inc.*, No. 14 C 3687, 2017 WL 2152385, at *2 (N.D. Ill. May 17, 2017) (quotation omitted).

The Court begins with the second motion to strike, which attacks Dr. Keramida's fourth report. That report primarily addressed data collected to assess the impact of a pilot test Johnson Controls conducted to remediate shallow groundwater. Johnson Controls presented that data in response to the motion for summary judgment through a declaration by Mr. Fenelon, an employee of its environmental consulting firm. Johnson Controls relied extensively on Mr.

Fenelon's declaration and the underlying data in opposing summary judgment, arguing that it shows that the pilot test successfully removed the vast majority of TCE from the groundwater in the areas it was deployed. Johnson Controls argued that this data further demonstrated that no imminent and substantial endangerment exists.

Under those circumstances, it is fair for Dr. Keramida to offer a supplemental report responding to that data. As Johnson Controls insists throughout its filings, the focus of an endangerment claim is the present condition of the contamination, not its past condition. *Meghrig*, 516 U.S. at 486. The new data addressed the effect of the pilot test at the site, which represented an intervening event that Dr. Keramida could not have addressed earlier. Whether Mr. Fenelon's declaration qualifies as expert testimony or not, it presented new data upon which Johnson Controls relied to argue that no endangerment currently exists. Johnson Controls in fact relied heavily on that data in opposing summary judgment, citing Mr. Fenelon's declaration dozens of times in its statement of facts. [DE 310]. It would be unfair to allow Johnson Controls to use that new information to its benefit, without allowing the Plaintiffs to respond to it through their expert.[5] Though the statements in this report may warrant some narrow follow-up discovery prior to trial, even Johnson Controls acknowledges that limited discovery of that nature is appropriate. Thus, the Court finds that Dr. Keramida's fourth report was appropriate, so the Court denies the second motion to strike.

Dr. Keramida's third report—the subject of the first motion to strike—is different in kind, though. This report addressed newly collected information, but for the most part, not new

[5] Dr. Keramida's report also addresses new vapor intrusion data, but her opinions in that regard are limited and, to the extent they break any new ground, are responsive to Mr. Fenelon's declaration. Johnson Controls also objects to other minor points in Dr. Keramida's report, but those objections overstate the significance of those points and fail to establish any prejudice.

developments. The new information primarily consisted of records of vapor sampling performed in early 2018 and maintenance performed on the vapor mitigation systems, and Johnson Controls' March 2018 groundwater monitoring report (reflecting samples taken in late 2017), which it submits twice a year to IDEM. The only intervening event that is addressed in this report was that sewer connections to the site were severed, to reduce the possibility that those lines would transport vapors from the site.[6] Dr. Keramida's report offered a total of fifteen pages of supplemental opinions, only two of which addressed the severed sewer lines. The report also offered an extensive rebuttal to a supplemental report on the vapor sampling and mitigation systems by Dr. Dawson, one of Johnson Controls' experts. Johnson Controls moves to strike Dr. Keramida's supplemental report, arguing that it merely uses the information as a pretext to bolster old opinions and offer new opinions that could have been disclosed before.

The Court begins with the opinions Dr. Keramida offers about compounds other than TCE presenting an endangerment. In her initial report, Dr. Keramida referred in passing to other volatile organic compounds, including perchloroethylene (PCE), and vinyl chloride. She stated, though, that "[g]iven the predominant presence of TCE in all polluted media," she would refer only to TCE "for brevity purposes." [DE 275-3 p.13]. Thereafter she referred a number of times to TCE "and other cVOCs" (chlorinated Volatile Organic Compounds), but never offered or developed any opinion that any other contaminants in particular create an imminent and substantial endangerment. The only testing data she cited in her report was for TCE, and the only

[6] Dr. Keramida's report also mentions a pilot test, but it appears to be referring to the emulsified zero valent ion test that was performed in 2015. As the timeline in the Plaintiffs' brief makes clear, they did not receive the results from the pilot test for shallow groundwater remediation (which began in November 2017) until after Dr. Keramida's report. Though one group of wells was sampled shortly after that test began, which was included in the March 2018 report, Dr. Keramida does not offer any opinions in this report on the effect of the shallow groundwater pilot test.

screening levels she identified as a baseline for establishing dangerous levels were for TCE. She referenced "other cVOCs" in that discussion only to explain the effect they have on the applicable screening levels *for TCE*. She did not compare the sampling data against any appropriate benchmarks for any other contaminants or explain whether and how they present an endangerment in their own right, as she attempts to do now.[7] In contrast, Dr. Keramida's third report focuses heavily on the presence of vinyl chloride in groundwater and of PCE in indoor air, arguing that those compounds present a danger in their own right. Given the absence of any similar discussion in Dr. Keramida's initial report, these are new opinions.

The recent data does not justify these new opinions. The parties have long known that these compounds are present in the contamination, and Dr. Keramida could have offered opinions on these subjects in her initial report. For example, in asserting in her supplemental report that PCE and vinyl chloride are present in the groundwater in dangerous levels, Dr. Keramida cites a sample of PCE from November 2015, and a sample of vinyl chloride from May 2016. She could have addressed those issues in her March 2017 report or prior to her November 2017 deposition. Dr. Keramida's third report likewise focuses extensively on the presence of

[7] Some of the tables and figures attached to Dr. Keramida's initial report contain data for some of the other compounds, but those materials do not adequately disclose any opinion in that regard either. In fact, the vast majority of test results in those materials show that the compound was not even detected. Those materials thus do not reflect which, if any, of those compounds Dr. Keramida believed created an endangerment, or in what respect, nor do they explain the basis for such an opinion, as required under the rules. For example, in her third report, Dr. Keramida's opinion about PCE is based on, among other factors, an analysis of the atmospheric lifetime of PCE as compared to other compounds, a subject that is entirely absent from her initial report. Attaching a data-dump to the end of an expert report fails to provide "a complete statement of all opinions the witness will express and the basis and reasons for them." Fed. R. Civ. P. 26(a)(2)(B)(i); *see Salgado ex rel. Salgado v. Gen'l Motors Corp.*, 150 F.3d 735, 741 n.6 (7th Cir. 1998) ("Expert reports must include 'how' and 'why' the expert reached a particular result, not merely the expert's conclusory opinions."); *Fidelity Nat'l Title Ins. Co of N.Y. v. Intercounty Nat'l Title Ins. Co.*, No. 00 C 5658, 2001 WL 789218, at *3 (N.D. Ill. July 12, 2001).

PCE in the recent vapor intrusion sampling. However, even though they knew that PCE was present in the contamination, and that the initial vapor intrusion sampling had not screened for PCE, the Plaintiffs conducted no sampling to determine whether PCE was entering indoor air. Rather than conducting any investigation of their own—even in their own homes—the Plaintiffs essentially chose to free-ride on the sampling that Johnson Controls conducted pursuant to its ongoing oversight by IDEM. That is an acceptable choice, but it does not free them of the consequences of failing to timely disclose their opinions if they failed to develop the support for those opinions during discovery. In other words, the only reason this information is new is that the Plaintiffs failed to develop it during discovery, when they had ample opportunity to do so—the information was not unavailable during discovery, it just wasn't developed. Thus, the recent data does not permit the Plaintiffs to offer new opinions on these compounds.

Allowing the Plaintiffs to offer those new opinions at this point would create substantial prejudice, as it would require extensive follow-up discovery with new expert reports. During discovery, both sides retained expert witnesses to opine as to whether the contamination posed a danger to human health. Given that Dr. Keramida's report focused on TCE, those experts did likewise: Johnson Controls retained an epidemiologist and a medical doctor to address whether TCE presented a substantial endangerment, and the Plaintiffs retained a toxicology expert, who likewise focused exclusively on TCE. None of those experts addressed the dangers of other compounds. Permitting Dr. Keramida to opine now that other compounds present a substantial endangerment themselves would require Johnson Controls to have their experts prepare brand new reports (or to retain new experts) addressing the dangers associated with these other compounds, presumably followed by depositions on those new opinions. Since there is no reason Dr. Keramida could not have addressed these compounds in her initial report, there is no reason

the Court should countenance the cost and delay that would entail. Therefore, the Court grants the motion to strike as to Dr. Keramida's opinions that compounds other than TCE present a danger in their own right.

In each of the other respects, though, the Court denies the motion to strike. The other supplemental opinions arise out of and address matters that Dr. Keramida explored in her initial report (albeit in less detail in some instances), and her rebuttal opinions appropriately respond to opinions that Dr. Dawson offered in her own supplemental report. For example, Dr. Keramida supplemented her report to address the data on vapors in the sewer lines after they were severed. That is an appropriate supplement, as her initial opinion likewise discussed the threat of vapor intrusion through sewer lines as preferential pathways, and the severing of the sewer lines was a new development at the site. Dr. Keramida also opined in her supplement that the new data further supports her previous opinion that the contamination was traveling in the direction of the city wellfield. The analysis in her supplemental report largely parallels the analysis in her initial report and in her deposition as to similar data. Johnson Controls also objects to Dr. Keramida's supplemental opinion that the contamination is getting worse, since she previously opined based on much of the same data that it would remain at similar levels. However, that is more of a basis for impeaching her supplemental opinion than for excluding it. If, for example, Dr. Keramida opined that the new data showed that the contamination was getting better, Johnson Controls would surely view that as a proper supplement. Last, the Court believes that the rebuttal portion of Dr. Keramida's report was appropriate. Though Dr. Keramida's rebuttal is considerably longer than the brief report it rebutted, it is generally responsive to that report and attempts to "contradict, impeach or defuse the impact" of Dr. Dawson's supplemental opinions. *Peals*, 535 F.3d at 630.

Moreover, to the extent this report may stray beyond the appropriate limits of supplemental or rebuttal reports, the Court finds that the prejudice is limited and curable. Johnson Controls expresses concern that the parties would have to refile their motions for summary judgment, which had already been extensively briefed. However, the Court's resolution of those motions does not depend on any of these materials, nor do these materials warrant another round of summary judgment motions, so that concern is unfounded. Johnson Controls also notes that it had already briefed its *Daubert* motion in which it moved to exclude Dr. Keramida's opinions. As discussed above, though, the Court has deferred its resolution of those objections in large part until trial. Johnson Controls will have the opportunity to object to any of Dr. Keramida's opinions in these latest reports in that context as well.

And finally, the parties can address these new reports with limited follow-up discovery prior to trial. Even Johnson Controls has acknowledged that narrow discovery would be warranted as new information and new developments arise. [DE 330 p. 3 ("[Johnson Controls] anticipated, in light of the 2018 vapor sampling data, that the parties' experts may supplement their reports, [and] that the parties may want to take depositions on these supplements[.]"); DE 344 p. 11 ("[Johnson Controls] is amenable to [its consultants] sitting for supplemental depositions to give Plaintiffs an opportunity to probe subject matter that has developed since their 2016 depositions.")]. As Johnson Controls explained in another filing, "[a]fter all, as remediation work progresses at the Site, regardless of any expert discovery issues, narrow discovery may need to [be] conducted regarding the remedial advances being made . . . ." [DE 344 p. 11–12]. Since the focus of an endangerment claim is the present condition of the contamination, the Court agrees that narrow discovery of that sort is warranted as new information becomes available and new developments occur. That discovery will alleviate any

prejudice Johnson Controls may have otherwise experienced from Dr. Keramida's supplemental reports. Thus, except as to the opinions as to other compounds, addressed above, the Court denies the motion to strike.

C. Motion to Exclude Dr. Orris' Opinions

Johnson Controls also filed a motion to exclude expert opinions by Dr. Peter Orris. Dr. Orris is a medical doctor who opined that the concentrations of TCE found at the site and in the neighborhood pose a substantial danger to public health. In moving to exclude that opinion, Johnson Controls argues that Dr. Orris is unqualified, that his opinions are not based on a reliable methodology or sufficient facts, and that they are not helpful. As discussed above, the Court believes that it can better evaluate the admissibility of Dr. Orris' opinions at trial. Therefore, the Court dismisses Johnson Controls' motion, but with leave to renew its objections at trial.

D. Motion to Exclude Johnson Controls' Experts Opinions

The Plaintiffs moved to exclude various opinions by four of Johnson Controls' experts. The Court elects to resolve these objections now, as they are neither complex nor substantial. The Plaintiffs first move to exclude an opinion by Dr. Helen Dawson, an expert in vapor intrusion who addressed whether the contamination "may threaten an imminent and substantial endangerment to human health through the vapor intrusion pathway." [DE 282-30 p. 5]. As relevant here, she concluded that vapor intrusion did not threaten an imminent and substantial endangerment to human health in the Plaintiffs' neighborhood. In the course of her analysis, she acknowledged that TCE had been detected in the indoor air of some homes in that neighborhood. She further noted, however, that vapor mitigation systems had been installed in each of those homes, leading her to conclude that those homes were not endangered.

In moving to exclude that opinion, the Plaintiffs argue that Dr. Dawson did not personally inspect any of the vapor mitigation systems, and that without having done so, she was merely

speculating as to whether the systems were actually mitigating the risk of vapor intrusion. That argument fails to engage with Dr. Dawson's actual analysis, though. Dr. Dawson noted that mitigation systems are "the most common and successfully employed approach to structure mitigation for VOC [Volatile Organic Compound] vapor intrusion." [DE 282-30 p. 18]. She further noted that the systems installed in these homes were "typical of the thousands of radon systems that have been installed by regulators and responsible parties in the United States." *Id.* And most important, she relied on the fact that "[p]ost-mitigation sampling of indoor air . . . demonstrated that there are no structures with indoor air TCE concentrations above IDEM screening levels." *Id.* In other words, the proof is in the pudding. The Plaintiffs are free at trial to challenge and contradict the factual underpinnings of her analysis, and to argue that the Court should not accept her conclusion. *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000) ("The soundness of the factual underpinnings of the expert's analysis and the correctness of the expert's conclusions based on that analysis are factual matters to be determined by the trier of fact[.]"). But the premise for the Plaintiffs' motion—that Dr. Dawson relied solely on blind faith that the systems work—is inaccurate, so the Court denies the motion to exclude this opinion.

The Plaintiffs also sought to exclude the opinions of three other experts on the basis that they relied at least in part on Dr. Dawson's opinion. Having rejected the challenge to Dr. Dawson's opinion, the Court rejects those challenges as well. And in any event, each of those experts also made clear that they were relying on test results, not speculation about the effectiveness of the systems. [DE 286-12 (Dr. Chang: "I did not make assumptions about whether the mitigation systems were working in individual buildings. I looked at the sampling measurement results for indoor TCE in those buildings[.]"); DE 282-38 p. 14 (Dr. Fedoruk: "Based on recent air sampling, TCE contamination originating from the Site does not threaten a

risk of an imminent and substantial endangerment to human health. Mitigation measures enacted in 2011 in homes have resulted in indoor air in which there are no reported TCE levels exceeding the IDEM screening level for indoor residential air."); DE 282-40 p. 25 (Dr. Zeeb: "I have reviewed the indoor air monitoring data and concluded that the mitigation systems are functioning to eliminate the vapor intrusion pathway. The sub-slab depressurization systems currently in use for this purpose are commonly applied, reliable, and accepted as a risk mitigation strategy by the USEPA and most states, including Indiana.")].

The Plaintiffs next move to exclude an opinion by Dr. Ellen Chang, an epidemiologist. Dr. Chang addressed "whether, based on the science of epidemiology, the present levels of contamination . . . may threaten a risk of an imminent and substantial endangerment to human health." [DE 282-36 p.3]. She concluded that the levels of TCE found in indoor air in the neighborhood did not present such a risk, as they "are substantially below levels significantly associated with adverse human health outcomes in epidemiologic studies on a consistent basis." *Id.*

The Plaintiffs argue that Dr. Chang is not qualified to offer that opinion. They do not dispute that Dr. Chang has all the necessary qualifications as an epidemiologist. They argue, though, that she is unqualified to offer an opinion about the risks of TCE because she is not an expert in "toxicological, experimental, or mechanistic animal and in vitro studies." [DE 281 p. 3]. This argument has no merit. The Plaintiffs offer no reason why a witness must be an expert in every discipline that could possibly bear on a question before offering an opinion on that question, and the Seventh Circuit has expressly rejected such a suggestion. *Smith*, 215 F.3d at 720. Dr. Chang is an expert in epidemiology and she grounds her opinion on that expertise. [DE 282-36 p. 7 ("I have been asked . . . to opine on whether, *based on the science of*

epidemiology . . . ." (emphasis added))]. That the Plaintiffs intend to offer evidence based in other disciplines does not render Dr. Chang unqualified or her opinion irrelevant. The Court therefore denies the motion to exclude this opinion.

Next, the Plaintiffs move to exclude an opinion by Dr. Peter Zeeb, a hydrogeologist. He addressed whether, based on the geology and hydrogeology in the area, the contamination poses a threat to any potential receptors, including the municipal wellfield, private wells, utilities, surface water, and indoor air. As relevant here, he opined that the "[o]ngoing and planned remediation activities for the Site are sufficient to prevent any future threat of Imminent and Substantial Endangerment." [DE 282-40 p. 9]. The Plaintiffs ask the Court to exclude this opinion because Dr. Zeeb "had no factual basis for predicting what remedial activities [Johnson Controls] may attempt to implement in the future" [DE 281 p. 4] and that he is "not qualified to predict the future at the Site." [DE 282 p. 25].

That argument misunderstands Dr. Zeeb's opinion. The point of Dr. Zeeb's testimony is not to speculate as to what Johnson Controls would do in the future—he does not claim expertise as a psychic. Rather, he was provided information about what remedial activities Johnson Controls intended to employ, and his opinion addressed what effect those activities could be expected to have on the contamination. He can testify based on his expertise about what effect certain techniques could be expected to have, just as Dr. Keramida addressed in her report what techniques she believes would be effective.[8] Again, the Plaintiffs are free to challenge the assumptions on which Dr. Zeeb's opinion is based, but that does not make his opinion inadmissible. The Court thus denies the motion in this respect too.

[8] The Plaintiffs also appear to suggest that Dr. Zeeb cannot opine on the effectiveness of a given technique without first reviewing complete schematics for how it would be implemented. Not only is that assertion unfounded, but even Dr. Keramida performed no such analysis.

Finally, the Plaintiffs move to exclude an opinion by Dr. Marion Fedoruk, a medical doctor who evaluated whether the contamination posed a health risk, primarily responding to the Plaintiffs' experts' opinions on that subject. The Plaintiffs seek to exclude his opinion because they dispute a single factual statement in his 23-page report: that state environmental officials have not determined that the contamination presents an imminent and substantial endangerment to human health. As repeatedly discussed already, though, disputes about "the factual underpinnings of the expert's analysis . . . are factual matters to be determined by the trier of fact," not grounds for exclusion under Rule 702. *Smith*, 215 F.3d at 718. In any event, there is at least a dispute as to whether this fact is true. The Plaintiffs rely on the testimony of Don Stilz, who testified as a Rule 30(b)(6) designee for IDEM, and who stated that he believed the site presented an endangerment to human health. That topic was not within the Rule 30(b)(6) notice, though, so this testimony may or may not reflect the view of the agency. The subsequent questioning also suggested that Mr. Stilz had little if any foundation upon which to offer such an opinion. [DE 294-16 p. 63–67]. Again, the Plaintiffs are free to explore this issue through cross-examination and by offering contrary evidence, but that is not a basis to exclude Dr. Fedoruk's testimony. Accordingly, the Court denies the Plaintiffs' motion.[9]

E. Motion to Supplement Rule 26 Disclosures

Next, Johnson Controls filed a motion for leave to supplement its Rule 26(a)(2) disclosures. Johnson Controls wishes to disclose as non-retained expert witnesses under Rule 26(a)(2)(C) three of its environmental consultants who have worked at the site. Those three individuals were previously disclosed as fact witnesses under Rule 26(a)(1), and their testimony will primarily address their activities at the site and the sampling they conducted in the area.

[9] Johnson Controls also moved for leave to file a surreply in response to this motion. The Court denies that motion, as a surreply is unwarranted.

However, Johnson Controls notes that these individuals may also draw on their technical expertise in describing their work. In that respect, Johnson Controls now believes their testimony may constitute expert testimony. Accordingly, it moved for leave to supplement its disclosures to identify these individuals as non-retained expert witnesses under Rule 26(a)(2)(C).

The Court denies Johnson Controls' motion. A party does not need permission to supplement its disclosures. To the contrary, the rules require a party to supplement its disclosures upon learning that they are incomplete or incorrect. Fed. R. Civ. P. 26(e) (stating that a party "must supplement" a disclosure "in a timely manner if the party learns that in some material respect the disclosure . . . is incomplete or incorrect"). The relief Johnson Controls seeks—permission to supplement its disclosures—is therefore unnecessary.

The substance of Johnson Controls' motion, however, is aimed at requesting different relief: a preemptive finding that its supplement was timely, or that it should be permitted to offer the witnesses' testimony anyway because the disclosure, if late, was harmless. The Court declines to entertain that request in this posture. As just noted, Johnson Controls relies on Rule 26(e), but that rule does not require leave of court for a supplement. The consequences of untimely disclosures are addressed in a separate rule, Rule 37(c). But the Court cannot resolve on the present filings whether the witnesses' testimony should be excluded under that rule. The parties agree that these three witnesses have been properly disclosed as fact witnesses and can testify in that capacity. The dispute is over other aspects of their testimony that may border on or cross the line into expert testimony. However, the parties do not specify where they believe that line is or what particular testimony crosses it. Without knowing what specific testimony is at issue, the Court cannot evaluate whether it constitutes expert testimony or whether the Plaintiffs

will suffer prejudice from the untimely disclosure (particularly when these three witnesses have all given depositions already and their work product has been provided to the Plaintiffs).[10]

Accordingly, the Court denies Johnson Controls' motion, but will address the underlying issue if necessary on a Rule 37(c) motion. The Court is hopeful, however, that this issue can be resolved, at least in part, by agreement and limited discovery. As both parties acknowledge in various filings, and as discussed above, it is appropriate for the parties to address any new developments at the site, including ongoing remediation activities. Thus, at least to the extent any would-be expert testimony from these witnesses addresses such developments, the Court is likely to permit the testimony and allow the parties to conduct narrow follow-up discovery prior to trial, as with Dr. Keramida.

F. Motion to Seal

Finally, the Plaintiffs filed a motion to seal an exhibit they submitted with their reply in support of summary judgment. The document had been produced by Johnson Controls, which labeled it confidential. Consistent with the protective order, the Plaintiffs dutifully filed the document under seal along with a motion to maintain it under seal. However, the Plaintiffs offered no further justification for why the document should be sealed—it's not their document, so they have no incentive to preserve its secrecy—and Johnson Controls never responded to the motion to supply that justification.

Parties have wide latitude to protect the confidentiality of documents exchanged during discovery. Once documents are filed with the Court, though, they become subject to a

[10] The Court is dubious, however, of Johnson Controls' argument that a supplement would be timely because no deadline was ever set to disclose non-retained expert witnesses. Though the magistrate judge did not set a deadline for Rule 26(a)(2)(C) disclosures in particular, he set deadlines for the close of "all discovery" and for "expert discovery." [DE 206, 269]. Johnson Controls could not have reasonably believed that it need not disclose any non-retained experts during discovery.

presumption of public access. *City of Greenville, Ill. v. Syngenta Crop Protection, LLC*, 764 F.3d 695, 697 (7th Cir. 2014) ("Discovery material can be shielded from the public eye. Once filed with the court, however, documents that affect the disposition of federal litigation are presumptively open to public view unless a statute, rule, or privilege justifies confidentiality." (internal quotations and citations omitted)); *Baxter Int'l, Inc. v. Abbott Labs.*, 297 F.3d 544, 545 (7th Cir. 2002). That presumption can be rebutted for privileged materials or trade secrets, for example, but not a mere desire for confidentiality. The burden lies on the party seeking confidentiality. *Heraeus Kulzer, GmbH v. Biomet, Inc.*, 881 F.3d 550, 565 (7th Cir. 2018). Here, neither party has attempted to meet that burden, so the Court denies the motion to seal.

III. SUMMARY JUDGMENT STANDARD OF REVIEW

Summary judgment is proper when the movant shows that there "is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). A "material" fact is one identified by the substantive law as affecting the outcome of the suit. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A "genuine issue" exists with respect to any material fact when "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Id*. Where a factual record taken as a whole could not lead a rational trier of fact to find for the non-moving party, there is no genuine issue for trial, and summary judgment should be granted. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (citing *Bank of Ariz. v. Cities Servs. Co.*, 391 U.S. 253, 289 (1968)). In determining whether a genuine issue of material fact exists, this Court must construe all facts in the light most favorable to the non-moving party and draw all reasonable and justifiable inferences in that party's favor. *Jackson v. Kotter*, 541 F.3d 688, 697 (7th Cir. 2008); *King v. Preferred Tech. Grp.*, 166 F.3d 887, 890 (7th Cir. 1999). In a case involving cross-motions for summary judgment, that means that each party receives the benefit of all reasonable inferences

when considering the opposing party's motion. *Tegtmeier v. Midwest Operating Eng'rs Pension Tr. Fund*, 390 F.3d 1040, 1045 (7th Cir. 2004); *Hendricks-Robinson v. Excel Corp.*, 154 F.3d 685, 692 (7th Cir. 1998).

IV. DISCUSSION

The Resource Conservation and Recovery Act provides two causes of action for private citizens. 42 U.S.C. § 6972. First, subsection (a)(1)(A) of § 6972 provides a claim when a party is in violation of its obligations under the Act. Upon proof of a violation, a court has the authority to enter an injunction enforcing the obligation, and can also impose civil penalties. Second, subsection (a)(1)(B) provides a claim when contamination may present an imminent and substantial endangerment to health or the environment. That claim permits a court to enter any necessary injunctive relief. The Plaintiffs assert claims under both subsections, and the Court considers each in turn.

A. Section 6972(a)(1)(A) "Violation" Claim

The Plaintiffs first assert a claim under § 6972(a)(1)(A). That subsection provides a cause of action when a party is "in violation of" a "permit, standard, regulation, condition, requirement, prohibition, or order which has become effective pursuant" to the Act. 42 U.S.C. § 6972(a)(1)(A). The Plaintiffs offer two theories in support of that claim. First, they argue that Johnson Controls is in violation of the performance standard for closure, 40 C.F.R. § 265.111,[11] because contamination still exists at levels beyond those permitted by that standard. Second, they argue that Johnson Controls failed to complete closure of waste management units at its facility that it did not disclose in its closure plan. The Court addresses each theory in turn.

[11] Indiana has incorporated these regulations by reference as part of its hazardous waste program authorized by the EPA under § 6926(b). 329 Ind. Admin. Code 3.1-10-1 (incorporating 40 C.F.R. part 265 by reference); *see also* 329 Ind. Admin. Code 3.1-4-1(a) (incorporating the applicable definitions by reference).

1. Violation of the Performance Standard

The Plaintiffs first claim that Johnson Controls is currently in violation of its closure obligations because contamination still exists at unacceptable levels. They argue that the closure performance standard requires the removal of contamination "to the extent necessary to protect human health and the environment," 40 C.F.R. § 265.111, and that Johnson Controls is in violation of that regulation because it has not yet achieved that level of remediation. Johnson Controls argues in response that it has complied with and satisfied each of its closure obligations, and is properly remediating the existing contamination through Indiana's Voluntary Remediation Program, so it is not in violation of its closure obligations.

The Court grants summary judgment in favor of Johnson Controls on this claim. It is undisputed that Johnson Controls has completed each step of the closure process as set forth in the regulations—it submitted a closure plan, received agency approval of that plan, completed the activities set forth in that plan, and submitted a certification of closure. The Plaintiffs' argument that Johnson Controls is nonetheless in violation of its closure obligations assumes that all remediation under the Act is conducted through the closure process, and also assumes that the performance standard can be enforced independent of the regulations that implement it. The Court disagrees in both respects, so the Plaintiffs have failed to show that Johnson Controls is in violation of the closure regulations.

a. The Closure Process

As discussed on the motion to dismiss, the regulations dictate a specific process by which a facility undergoes closure of its waste management units in order to terminate its status as a treatment, storage, or disposal facility.[12] *Schmucker v. Johnson Controls, Inc.*, 90 F. Supp. 3d

[12] Both parties have cited witness testimony in support of their arguments as to what the regulations require. As noted above, though, the meaning of regulations is a question of law for

786, 799–800 (N.D. Ind. 2015). First, a facility must prepare "a written closure plan." 40 C.F.R. § 265.112(a). The closure plan must contain a number of elements, including a description of how each hazardous waste management unit at the facility will be closed in accordance with the performance standard; a description of the steps needed to remove or decontaminate all hazardous waste residues and criteria for determining the extent of decontamination necessary to satisfy the performance standard; and a schedule for the closure of each unit. *Id.* § 265.112(b).

Prior to beginning closure, the facility must submit the closure plan to the state agency for its review. *Id.* § 265.112(d)(1). The agency then provides public notice of the plan and an opportunity for public comments and requests for modifications. *Id.* § 265.112(d)(4). It may also hold a public hearing. *Id.* The agency may then "approve, modify, or disapprove the plan." *Id.* If the agency does not approve the plan, the facility must modify the plan or submit a new plan for approval. *Id.* In conducting this review, the agency must assure that the closure plan is consistent with the closure performance standard and other applicable regulations. *Id.* Once the agency approves the closure plan, the facility must remove the hazardous wastes and complete the closure activities "in accordance with the approved closure plan," *Id.* § 265.113(a), (b). Once the facility completes closure of each of the units, it must submit a certification by a qualified engineer that the facility "has been closed in accordance with the specifications in the approved closure plan." *Id.* § 265.115.

It is undisputed that Johnson Controls completed each of those steps. It submitted a closure plan in February 1991, which IDEM approved after allowing for public comment. It later submitted an amended closure plan in 1998, which it supplemented in response to comments by

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the Court to decide and is not subject to witness testimony. *Aguirre*, 582 F.3d at 814; *Good Shepherd*, 323 F.3d at 564.

IDEM. [DE 294-22, -23]. That closure plan identified three waste management units that still needed to undergo closure. It defined the scope of those units as the boundaries of the units, plus the underlying soil to a depth of 1 foot. The plan also identified the activities required to remediate each of those units in compliance with the performance standard. For one of the units, that entailed removing the concrete floor, excavating the soil to a depth of 1.5 feet, placing a plastic liner, inserting clean gravel, and then placing a new concrete floor. The closure plan further explained that the contamination outside the scope of the waste management units themselves would be addressed through the Voluntary Remediation Program rather than as part of closure.

After allowing an opportunity for public comments (and receiving none), IDEM approved this closure plan. Johnson Controls then implemented the plan, conducting each of the activities called for by the approved closure plan. On March 30, 2000, Johnson Controls submitted its closure certification, in which it discussed the steps it took to complete closure and certified that the waste management units "have been closed in accordance with the specifications in the approved closure plan." [DE 294-24 p. 6]. In a letter dated August 16, 2000, IDEM accepted Johnson Controls' certification of closure, with the condition that Johnson Controls would continue to address the remaining contamination through the Voluntary Remediation Program. [DE 294-25]. In its letter, IDEM stated that "total closure is completed as required by 40 CFR 265 Subpart G" and that the facility now qualified as a generator of hazardous waste instead of a storage facility. In the meantime, Johnson Controls had also entered the Voluntary Remediation Program, in which it continues to participate.

The Plaintiffs do not argue that Johnson Controls failed to perform any activities required under its approved closure plan, or that it failed to complete any particular step in the closure

process. Nor do they claim that Johnson Controls is in violation of any obligation under the Voluntary Remediation Program. Instead, they argue that Johnson Controls is in violation of the closure performance standard, 40 C.F.R. § 265.111, because contamination still exists at and around the site at levels that are not protective of human health and the environment. Because that degree of contamination still exists, they contend that Johnson Controls has not yet completed closure and is thus in violation of the Act. This is essentially the same argument that the Court rejected in granting the motion to dismiss, and for those same reasons and the reasons below, it fares no better now.

b. Closure versus Corrective Action

First, in arguing that the existence of contamination equates to a violation of the Act's closure regulations, the Plaintiffs assume that all of the Act's clean-up objectives are accomplished through the closure[13] process. That is not so. The Act addresses remediation primarily through the corrective action process, which gives the agencies wide-ranging authority to order on- and off-site remediation of past and present releases of hazardous waste, regardless of whether a facility is undergoing closure and regardless of whether the releases were connected to a waste management unit. *See* 42 U.S.C. § 6928(h); Ind. Code §§ 13-22-13-1, -2. The closure process is more modest, and primarily entails terminating a facility's treatment, storage, or disposal activities and removing hazardous waste from the waste management units.

[13] The term "closure" is sometimes used in different ways in this context. As relevant here, closure refers to the specific process laid out in 40 C.F.R. § 265.111–15 for terminating a facility's status as an interim status facility. However, the term is also sometimes used more broadly, referring to the completion of corrective action or other remedial activities. *See Peniel Grp., Inc. v. Bannon*, 973 N.E.2d 575, 577 n.2 (Ind. Ct. App. 2012) ("'Closure' is IDEM's written recognition that a party has demonstrated attainment of specific investigative o[r] remediation objectives for contaminants in a particular area.").

The portion of the performance standard on which the Plaintiffs rely states that a facility must be closed in a manner that "[c]ontrols, minimizes, or eliminates, to the extent necessary to protect human health and the environment, *post-closure escape* of hazardous waste . . . to the ground or surface waters or to the atmosphere[.]" 40 C.F.R. § 265.111(b) (emphasis added). But the contamination underlying the Plaintiffs' claim does not arise from any post-closure escape of hazardous waste; it is contamination that had already escaped from the hazardous waste units (or was otherwise spilled at the facility) and had migrated through the site and into the Plaintiffs' neighborhood.

A facility can be required to remediate all on-site and off-site contamination of that sort through the corrective action process, but that authority is distinct from the Act's closure process.[14] Closure is complete when all hazardous waste management units at the facility have been closed and hazardous waste management activities are no longer conducted at the facility. 40 C.F.R. § 260.10 (defining "final closure"). No hazardous waste management activities have been conducted at Johnson Controls' site for some time, and the Plaintiffs do not dispute that the hazardous waste units (as defined in Johnson Controls' approved closure plan) have been closed—Johnson Controls excavated all of the soil within those units that contained

[14] IDEM's 30(b)(6) representative discussed how this interplay between closure and corrective action works in practice—though, again, the meaning of the regulations is a question of law for the Court. [DE 294-16 p. 33–34 (noting that, for facilities with more extensive releases of contamination, the corrective action or voluntary remediation processes handle the long-term monitoring and clean-up of those releases, rather than the closure process), p. 51–52 ("Johnson Controls as an interim status facility has, *in addition to any closure activities*, has corrective action obligations to meet. And those are that there are no releases from the facility, either at or from the facility that are injurious to human health or the environment." (emphasis added)), p. 67–68 ("Closure is an action that takes place on a unit that warranted a permit . . . . Corrective action pertains to the entire facility and would assess for releases from any unit[.]"), p. 69 (agreeing that "while a particular unit may be closed and require no additional work, there may still be corrective action that . . . is ongoing at a site")].

contamination. There is thus no danger of any "post-closure escape of hazardous waste" from those units. 40 C.F.R. § 265.111(b).

Instead, the Plaintiffs' complaint is that contamination has already migrated throughout the site and their neighborhood. But contamination of that nature is addressed through the corrective action process. Under § 6928(h), "Whenever on the basis of any information the Administrator [of the EPA] determines that there is or has been a release of hazardous waste into the environment from [an interim status facility], the Administrator may issue an order requiring corrective action or such other response measure as he deems necessary to protect human health or the environment." 42 U.S.C. § 6928(h). IDEM has similar authority pursuant to state law: "If, on the basis of any information, the commissioner determines that there is or has been a release of hazardous waste . . . from a facility authorized to operate under interim status . . . , the commissioner may . . . issue an order requiring corrective action or another response measure that the commissioner considers necessary to protect human health or the environment[.]" Ind. Code § 13-22-13-1. Indiana law further specifies that the commissioner "may order the performance of corrective action beyond the boundaries of the facility from which the release occurs." *Id.* § 13-22-13-2.[15]

As those provisions make clear, though, corrective action must be imposed by the federal or state agencies. Subsection (a)(1)(A) does not give similar authority to private citizens.[16] A

[15] Johnson Controls also cites § 265.110(d), which allows the agency to replace the closure requirements with alternative requirements for closure. However, that applies to "regulated units"—a term of art defined in 40 C.F.R. §264.90—and Johnson Controls has not shown that any of the units here constitute "regulated units," so the Court does not rely on that provision.

[16] The citizen-suit analog to the agencies' corrective action authority is a subsection (a)(1)(B) claim—but unlike corrective action, that claim applies only when contamination "may present an imminent and substantial endangerment to health or the environment." 42 U.S.C. § 6972(a)(1)(B); *see also Schmucker*, 90 F. Supp. 3d at 798–99.

subsection (a)(1)(A) claim applies only when a party is "in violation of" a "permit, standard, regulation, condition, requirement, prohibition, or order." 42 U.S.C. § 6972(a)(1)(A). An agency thus has to impose corrective action obligations before citizens can enforce those obligations. Here, IDEM has chosen to address the existing contamination by allowing Johnson Controls to enter the Voluntary Remediation Program—as expressly permitted by the Memorandum of Understanding between the EPA and IDEM—and the Plaintiffs do not argue that Johnson Controls is in violation of its obligations under that program.

The Plaintiffs argue that entry into the Voluntary Remediation Program does not relieve a party of its RCRA obligations. That is true, but it is of no moment here. Corrective action is not self-executing; as just discussed, it can only be imposed through an order or action brought by the agencies. 42 U.S.C. § 6928(h); Ind. Code § 13-22-13-1. And here, as also just discussed, IDEM exercised its authority to allow Johnson Controls to enter the Voluntary Remediation Program. Thus, participating in that program does not relieve Johnson Controls of its RCRA obligations; participating in that program *is* Johnson Controls' RCRA obligation.

As the Plaintiffs note, Johnson Controls has the right to withdraw from the Voluntary Remediation Program. But if it did, IDEM could impose a formal corrective action order with which Johnson Controls would have to comply. That has not happened, so the Plaintiffs have not identified any "permit, standard, regulation, condition, requirement, prohibition, or order" that Johnson Controls is violating. The Plaintiffs thus cannot make out a subsection (a)(1)(A) violation claim on that basis.

c. The Performance Standard as an Independently Enforceable Obligation

Second, the Plaintiffs' argument relies on the premise that the closure performance standard can be divorced from and enforced independently of the regulations laying out the

specific process for closure. The Court disagrees, as that premise would allow subsection (a)(1)(A) claims to become collateral attacks on the agency's oversight of the closure process and its approval of a facility's closure plan.

The performance standard identifies an end-goal of the closure process: to eliminate the post-closure escape of hazardous waste "to the extent necessary to protect human health and the environment." 40 C.F.R. § 265.111. But as already discussed, the regulations seek to accomplish that goal through a regimented process. The facility crafts a closure plan that it believes will meet the performance standard. *Id.* § 265.112(b). The agency then evaluates whether the plan is acceptable, and can reject the plan or require a facility to amend it in order to meet the performance standard. *Id.* § 265.112(d)(4). That step also includes public notice and comment. *Id.* Once the agency approves the closure plan, the facility must conduct closure "in accordance with the approved closure plan." *Id.* § 265.113(b).

Allowing private parties to independently enforce the performance standard alone, as the Plaintiffs propose, would allow them to cut the agency out of that process. The agency has to exercise judgment in deciding what conditions will satisfy the performance standard and what steps must be taken during closure to achieve those conditions. That is not always clear-cut. For example, the agency could decide that the performance standard must be met by remediating to residential levels, or it could decide that the standard can be met by a combination of remediating to industrial levels plus the use of an environmental restrictive covenant (both of which options would still qualify as "clean closure"). Or it could decide that the performance standard can be met by closure with contamination still in place, with engineering controls (like a vapor mitigation system) or physical barriers and other post-closure measures being put into place to protect human health and the environment. And to determine acceptable levels of contamination,

an agency can conduct a risk-based analysis based on the types and amounts of contamination and the potential exposure pathways at a specific facility.

The Plaintiffs' argument would allow private citizens to collaterally attack those agency decisions through subsection (a)(1)(A) claims. As the Plaintiffs would have it, even after an agency has made those decisions and approved a closure plan, and the facility has completed all of its obligations under that plan to a "T," private plaintiffs would still be able to assert subsection (a)(1)(A) claims by arguing that the approved closure activities were not actually protective enough of human health and the environment. They would then have federal courts—or juries, to which the Plaintiffs assert they are entitled on this claim—decide those questions that the regulations commit to the discretion of the agency.

That is precisely what the Plaintiffs seek to accomplish here.[17] Johnson Controls' closure plan identified specific actions that it would take in order to complete closure in accordance with the performance standard and other applicable regulations. IDEM reviewed and approved that plan, after which Johnson Controls implemented it. The Plaintiffs do not dispute that Johnson Controls completed all of the activities required under that approved closure plan: it closed each of the waste management units in the manner required by the plan to achieve final closure, and it entered the Voluntary Remediation Program to address the remaining contamination outside of those units.[18] The Plaintiffs now contend that those steps were not sufficient to satisfy the performance standard (or perhaps that the agency defined the scope of the units too narrowly), but the time to raise those complaints was while the agency was reviewing the closure plan—not

[17] Given that the Plaintiffs' claims amount to a challenge of IDEM's actions and authority, the Court invited IDEM to participate as amicus curiae, but it declined to do so.

[18] The Plaintiffs' citation to the deadline for completing closure, 40 C.F.R. § 265.113(b), is inapplicable for that reason, as it is undisputed that Johnson Controls has taken all of the steps required by its approved closure plan.

through a collateral attack on the agency's decision under the guise of a subsection (a)(1)(A) claim.[19]

The Plaintiffs attempt to resist that description of their claim by arguing that IDEM has already ordered that Johnson Controls must remediate the groundwater to the maximum contaminant level for residential property. They argue that Johnson Controls is in violation of that order because it has not yet achieved that level of remediation. However, that argument rests on gross mischaracterizations of the record.[20] For example, the Plaintiffs state in their brief that "Mr. Stilz [an IDEM representative] testified that in order to achieve RCRA closure, JCI [Johnson Controls] is required to remediate the groundwater flowing off-site to contain no more than 5 µg/L of TCE (the MCL)." [DE 315 p. 6]. Mr. Stilz testified to no such thing. In the testimony to which the Plaintiffs cite, Mr. Stilz was answering a question posed by Plaintiffs' counsel about a *hypothetical* closure at a *hypothetical* facility[21]; immediately prior to that hypothetical, Mr. Stilz testified that he did not know whether such a decision had been made for Johnson Controls, and that those decisions are not made until the facility and the agency conclude whether clean closure will be possible. [DE 294-16 p. 40–42]. The Plaintiffs attempt to defend their misrepresentation by arguing that other evidence, in combination with Mr. Stilz's testimony, supports the conclusion that Johnson Controls will have to remediate the groundwater

[19] That does not mean that the Court is abstaining, as the Plaintiffs suggest in part. Instead, the point is that subsection (a)(1)(A) provides a cause of action only when a party is in violation of a regulation (as relevant here), and the regulations grant authority to the agency to decide what actions a facility must take. Private individuals thus cannot raise a subsection (a)(1)(A) claim by arguing that a facility failed to take additional steps that the agency did not require.

[20] Moreover, even were that premise correct, it would not follow that just because Johnson Controls has not yet *achieved* that goal, it is currently in violation of its obligations.

[21] Mr. Stilz also testified that a facility could complete a closure by meeting risk-based levels specific to the facility even if it did not meet the maximum contaminant levels. [DE 294-16 p. 29–30].

to the maximum contaminant level. Not only does that rationalization fall short, but their brief attributed that conclusion directly to Mr. Stilz, misrepresenting his testimony.[22] Their other explanations are similarly unavailing and fail to show that IDEM has already imposed such a requirement, so the Court rejects this argument.

For those reasons, the Court finds that the Plaintiffs have not offered evidence that Johnson Controls is currently in violation of any "permit, standard, regulation, condition, requirement, prohibition, or order" effective under the Act. There is no dispute that Johnson Controls has performed each of the activities required by its approved closure plan. Though contamination still exists, which Johnson Controls is addressing through the Voluntary Remediation Program, the continued presence of that past contamination does not itself mean that Johnson Controls is currently in violation of its obligations. *Browning v. Flexsteel Indus., Inc.*, 959 F. Supp. 2d 1134, 1145–49 (N.D. Ind. 2013); *Forest Park Nat. Bank & Tr. v. Ditchfield*, 881 F. Supp. 2d 949, 965–66 (N.D. Ill. 2012).

Therefore, the Court grants summary judgment in favor of Johnson Controls on this aspect of the Plaintiffs' subsection (a)(1)(A) claim.

2. Undisclosed Waste Management Units

As a second basis for their "violation" claim, the Plaintiffs assert that the Johnson Controls facility contains additional areas that should have been designated and closed as waste management units. A waste management unit "is a contiguous area of land on or in which hazardous waste is placed," such as a waste pile, a landfill cell, a tank and its piping, or a container storage area. 40 C.F.R. § 260.10. Final closure occurs when all waste management

[22] The Court expects and demands that counsel be scrupulously accurate with the record, both as to what the evidence says and what it does not say. Anything less not only violates counsel's professional obligations to the Court, it leaves their arguments without factual support, as the Court will not indulge after-the-fact attempts to salvage these sorts of misrepresentations.

units at a facility have been closed. *Id.* In its closure plans, Johnson Controls identified four waste management units at its facility: an equipment storage area, two areas used to store hazardous wastes, and one area that included an above-ground storage tank. The closure plans identified the activities necessary to undergo closure of each of those units, and IDEM approved the plans. The Plaintiffs argue, however, that the facility contained other waste management units as well, and that Johnson Controls failed to undergo closure at those units. Both sides moved for summary judgment in their favor on this claim.

The Plaintiffs offered little attention to this claim in responding to Johnson Controls' motion for summary judgment. They primarily repeated their argument that because contamination exists at and around the facility at levels they believe to be unacceptable, Johnson Controls has violated the closure performance standard as to any undisclosed units as well. Thus framed, however, this claim is no different from the previous one, and it fails for the reasons just explained. Moreover, the Plaintiffs failed to respond to Johnson Controls' argument that none of the areas in question actually constitute waste management units. They acknowledged that argument only in a single sentence in a footnote, where they assert that they "believe" that certain areas constitute waste management units. [DE 315 p. 8 n.3]. They do not develop any argument in support of that belief, though, and have thus waived that argument. *Schaefer v. Univ. Scaffolding & Equip., LLC*, 839 F.3d 599, 607 (7th Cir. 2016) ("Perfunctory and undeveloped arguments are waived, as are arguments unsupported by legal authority."); *Packer v. Trs. of Ind. Univ. Sch. of Med.*, 800 F.3d 843, 848 (7th Cir. 2015) ("It is a well-settled rule that a party opposing a summary judgment motion must inform the trial judge of the reasons, legal or factual, why summary judgment should not be entered."); *Hernandez v. Cook Cty. Sheriff's Office*, 634

F.3d 906, 913 (7th Cir. 2011) (holding that "'skeletal' arguments may be properly treated as waived").

In support of their own motion for summary judgment, the Plaintiffs focus on one particular unit, a 220-gallon overflow tank, which they assert is a waste management unit. They argue that Johnson Controls is presently in violation of RCRA because it "never pursued or achieved RCRA closure for this tank system, as required by 40 C.F.R. § 265.197." [DE 288 p. 13]. Section 265.197 is contained in Subpart J of Part 265. However, Johnson Controls had served interrogatories asking the Plaintiffs to identify each regulation upon which they based their claim, and the Plaintiffs never identified any regulations in Subpart J.

Johnson Controls thus moved to strike any reference to Subpart J in the Plaintiffs' briefs. It argues that because the Plaintiffs failed to identify those regulations, they cannot now rely on them in support of their motion for summary judgment. In response, the Plaintiffs disclaim any argument that Johnson Controls is violating a Subpart J regulation. [DE 320 p. 4 (insisting that their claim does not rest "on a violation of Subpart J, or the specific section cited by Plaintiffs, 40 C.F.R. § 265.197," and stating that they "are not basing their § 6972(a)(1)(A) claim on Subpart J violations")]. The Court accepts that concession, which moots that aspect of Johnson Controls' motion to strike.[23]

Solving that problem only creates another one for the Plaintiffs, though: it leaves their motion bereft of any citation to authority in support of this claim. Besides a definitional

[23] Johnson Controls' motion also seeks to strike the Plaintiffs' references to an individual named Lazlo Pinnyei. The Plaintiffs state that Mr. Pinnyei used to live near the site, that he sued Johnson Controls over an alleged kidney condition, and that his case settled in 1993. The Court need not strike these statements, but they are wholly irrelevant, as the Plaintiffs offer no evidence that contamination had anything to do with Mr. Pinnyei's alleged injury. Without such a link, the Plaintiffs offer only insinuations, which offer no support for their claim.

regulation (which itself imposes no obligation that a party can be in violation of), the *only* regulations that the Plaintiffs cite in support of this claim are Subpart J regulations. [DE 288 p. 11–13]. Yet they now concede that they do not allege Johnson Controls to be in violation of those regulations. A claim under subsection (a)(1)(A) requires a party to be in violation of a "permit, standard, regulation, condition, requirement, prohibition, or order." 42 U.S.C. § 6972(a). If the Plaintiffs neither cite such an obligation, nor develop an argument as to how Johnson Controls is in violation of that obligation, it necessarily follows that they have failed to establish such a violation.

In their response to Johnson Controls' motion to strike, the Plaintiffs attempt to develop an argument that Johnson Controls actually violated other regulations. They did not raise that argument in their summary judgment brief, though, or in response to Johnson Controls' motion for summary judgment. Just as a party cannot raise new arguments in a reply brief, *Hernandez*, 634 F.3d at 913, neither can it raise new arguments on the merits in an ancillary filing like a response to a motion to strike, *see United States v. Miles*, 244 F. App'x 31, 33 (7th Cir. 2007) (holding that an argument developed only in an appendix is waived). As the Court has previously observed in this case and its companion, the parties have attempted to proliferate the briefing by spreading their arguments across sur-replies, supplements, and ancillary motions. The Court need not indulge that wasteful and burdensome tactic. Instead, the Court confines its review on the merits to the arguments properly presented in the motion for summary judgment. And having withdrawn the only argument they actually make in that filing, the Plaintiffs left their claim without any factual or legal support.

This failure to cite authority and develop a legal argument is not merely a superficial shortcoming, as it is not clear that the Plaintiffs could properly maintain a claim on this basis

anyway. The Plaintiffs argue that Johnson Controls failed to undergo closure for this "undisclosed" unit, but, as before, they refer to closure and the performance standard only in general terms, without developing an argument as to how Johnson Controls is in violation of any specific regulation. For example, the Plaintiffs argue in response to the motion to strike (which, again, is not properly before the Court on the merits of the motion for summary judgment) that Johnson Controls failed to file a closure plan for this unit. But the regulations require only a single closure plan for a facility, 40 C.F.R. §265.112(a), and it is undisputed that Johnson Controls did submit a closure plan for its facility, which IDEM reviewed and approved.

Granted, one of the required elements of a closure plan is a "description of how each hazardous waste management unit at the facility will be closed." 40 C.F.R. § 265.112(b)(1). Perhaps the Plaintiffs could argue (though they have not) that Johnson Controls violated this regulation because the closure plan that it submitted omitted a waste management unit, and thus did not address how "each" unit at the facility would be closed. But if so, that could very well be a past violation, rather than a present violation, in which case it could not support a subsection (a)(1)(A) claim. *Gwaltney*, 484 U.S. at 57. Johnson Controls submitted its closure plan to IDEM years ago. Submitting a closure plan then triggers a review process by the agency. § 265.112(d)(4). That process includes notice to the public and an opportunity for public comment, as well as a public hearing if appropriate. *Id.* The agency has the ability to require the facility to make changes to the closure plan, and can approve, modify, or disapprove of the plan. *Id.* The agency has the right to conduct site investigations as well, 42 U.S.C. § 6927(a), and is responsible for determining "whether, for what purposes, or which areas of [a] facility must be closed." *Northside Sanitary Landfill, Inc. v. Thomas*, 804 F.2d 371, 382 (7th Cir. 1986).

That process occurred here. Johnson Controls submitted its closure plan in February 1991, which IDEM approved after providing public notice. Johnson Controls later submitted a revised closure plan in August 1998. IDEM required Johnson Controls to make certain changes to that plan, prompting Johnson Controls to conduct additional sampling and submit a supplement to its closure plan in December 1998. IDEM then approved that closure plan in February 1999, again after providing public notice, and Johnson Controls proceeded to implement the plan as approved.

Given the availability of this review process and IDEM's approval of the closure plan, even if the closure plan that Johnson Controls first submitted to the agency was deficient, it is not clear that this deficiency constitutes an ongoing violation. *See United States v. Conservation Chemical Co. of Ill.*, 733 F. Supp. 1215, 1226–27 (N.D. Ind. 1989) (holding that submitting a deficient closure plan does not constitute a RCRA violation if the party revises the plan to comply with the agency's response). By failing to identify this regulation in the first place, the Plaintiffs have entirely failed to engage on this issue and develop an argument in support of how a violation of this requirement would constitute a present violation.

Finally, it is doubtful that the Plaintiffs stand to benefit from any relief that might be awarded on this theory. Upon a finding of a violation, § 6972(a) allows a court to enter an injunction that enforces the regulation in question. If the violation here is that Johnson Controls failed to include a unit in its closure plan, the injunctive relief would presumably be to require Johnson Controls to submit to IDEM a revised closure plan including that unit. Yet the relief the Plaintiffs are seeking is the remediation of contamination in their neighborhood and throughout the site. IDEM already approved Johnson Controls' remediation of that contamination—without regard to whether it is traceable to a waste management unit—through its Voluntary

Remediation Program rather than as part of the closure process. The Plaintiffs have not offered any reason why IDEM would do otherwise for any additional unit. And if the relief would not actually result in any practical change, that again would make this look like a past violation, not an ongoing one.

The Court does not purport to decide those questions definitively. However, this discussion illustrates why it is appropriate to enforce the Plaintiffs' waiver. This is a complex area of law, and this is not a case where there is an obvious claim that a party simply failed to develop as completely as it should. Under those circumstances, it is particularly appropriate for a court to hold the parties to the arguments they have properly developed and supported with citation to authority. *See Riley v. City of Kokomo*, 909 F.3d 182, 190 (7th Cir. 2018) ("It is not the obligation of this court to research and construct the legal arguments open to parties, especially when they are represented by counsel."); *JTC Petroleum Co. v. Piasa Motor Fuels, Inc.*, 190 F.3d 775, 780–81 (7th Cir. 1999) ("[T]he theory is a novel one and when a litigant wants a court to buy a novel theory it has to do more than assert it . . . . We have no obligation to review issues that are raised, but not independently and sufficiently developed, in an appellant's main brief." (internal quotation omitted)). Because the Plaintiffs failed to develop an argument on this claim in support of their own motion for summary judgment, and offered no meritorious argument in response to Johnson Controls' motion, the Court grants summary judgment in Johnson Controls' favor on this claim.

B. Section 6972(a)(1)(B) "Endangerment" Claim

The Plaintiffs next assert a claim under subsection (a)(1)(B), which provides a cause of action against a party that handled hazardous waste that "may present an imminent and substantial endangerment to health or the environment." 42 U.S.C. § 6972(a)(1)(B). The Plaintiffs contend that the contamination here may present such an endangerment in many ways.

They contend that it may present an endangerment to the environment by virtue of its presence in the groundwater and the possibility that it will migrate to the city's wellfield. They further contend that it may present an endangerment to health through the risk of vapor intrusion into homes and the possibility that residents may be exposed to contaminated groundwater.

Subsection (a)(1)(B) contains several qualifying words that require explanation. The first is "may," as the statute applies to contamination that "may present" an endangerment. 42 U.S.C. § 6972(a)(1)(B). Given that broad phrasing, courts have characterized this provision as "expansive" and as meant "to confer upon courts the authority to grant affirmative equitable relief to the extent necessary to eliminate any risks posed by toxic waste." *Me. People's Alliance & Nat. Res. Def. Council v. Mallinckrodt, Inc.*, 471 F.3d 277, 287 (1st Cir. 2006); *see also Grant*, 505 F.3d at 1020 (stating that "may" is "the operative word" in this provision); *LAJIM, LLC v. Gen. Elec. Co.*, No. 13 CV 50348, 2015 WL 9259918, at *10 (N.D. Ill. Dec. 18, 2015) ("[C]ourts have construed 'may present' as requiring plaintiffs to show only the potential for an imminent and substantial endangerment."). At the same time, "there is a limit to how far the tentativeness of the word *may* can carry a plaintiff"; it requires more than a mere possibility that an endangerment will occur in the future. *Crandall v. City & Cty. of Denver, Colo.*, 594 F.3d 1231, 1238 (10th Cir. 2010); *see also Avondale Fed. Sav. Bank v. Amoco Oil Co.*, 170 F.3d 692, 695 (7th Cir. 1999).

Next is "endangerment," which means "a threatened or potential harm and does not require proof of actual harm." *Simsbury-Avon Pres. Club, Inc. v. Metacon Gun Club, Inc.*, 575 F.3d 199 (2d Cit. 2009); *see also Mallinckrodt*, 471 F.3d at 296 ("[T]he combination of the word 'may' with the word 'endanger,' both of which are probabilistic, leads us to conclude that a reasonable prospect of future harm is adequate to engage the gears of [§ 6972(a)(1)(B)] . . . .").

That endangerment must be both imminent and substantial. An endangerment is "imminent" if it "threatens to occur immediately." *Meghrig*, 516 U.S. at 486. "[T]here must be a threat which is present *now*, although the impact of the threat may not be felt until later." *Id.*; *Albany Bank & Tr. Co. v. Exxon Mobil Corp.*, 310 F.3d 969, 972 (7th Cir. 2002) ("Imminence does not require an existing harm, only an ongoing threat of future harm."). Endangerments that existed only in the past do not qualify. *Meghrig*, 516 U.S. at 486. Finally, an endangerment is "substantial" if it is "serious." *Grant*, 505 F.3d at 1021. "This does not necessitate quantification of the endangerment, as an endangerment is substantial where there is a reasonable cause for concern that someone or something may be exposed to risk of harm by release, or threatened release, of hazardous substances in the event remedial action is not taken." *Id.*

Here, both sides move for summary judgment in their favor on this claim. The Court considers each in turn, and for each motion, the Court construes the facts in the light most favorable to the non-moving party. *Tegtmeier*, 390 F.3d at 1045.

1. Johnson Controls' Motion for Summary Judgment

Johnson Controls moves for summary judgment, arguing that the Plaintiffs have not offered evidence sufficient to establish that the contamination may present an imminent and substantial endangerment in any respect. The Plaintiffs defend against the motion on multiple grounds, arguing that the contamination may present an endangerment to the environment, and that it may present an endangerment to health through its presence in groundwater and its ability to enter homes through vapor intrusion. As with Dr. Keramida's opinion, the Court focuses its analysis on the threat of vapor intrusion, and denies the motion on that basis.

For many of the same reasons the Court denied the motion to exclude Dr. Keramida's opinion on the threat of vapor intrusion, the Court finds that the Plaintiffs have created a dispute of fact as to whether an endangerment exists on that basis. The Plaintiffs' homes have had TCE

detected in their indoor air, and the below-ground contamination that produced that vapor intrusion still exists. Though mitigation systems have now been installed, there is a question of fact as to whether they are effective and reliable enough to abate any endangerment.

Johnson Controls argues that the Plaintiffs err in relying largely on the presence of vapor intrusion in 2011, before the mitigation systems were installed. It notes that an endangerment claim applies to present or future harms, but does not apply to "waste that no longer presents such a danger." *Meghrig*, 516 U.S. at 485–86. The levels of vapor intrusion in 2011 are still probative of a present endangerment, though. Dr. Keramida opines that the contamination in the groundwater and soil vapors—from which vapor intrusion in indoor air can originate—is comparable today to the levels at the time those samples were taken in 2011. And the levels of vapor intrusion in 2011 demonstrate that the below-ground contamination is capable of entering the homes' indoor air in those amounts if not mitigated. Even Johnson Controls' expert could not say that no endangerment would exist if mitigation systems were not present in those homes.

The installation of vapor mitigation systems cuts against a finding that an endangerment still exists, but the Plaintiffs have offered evidence sufficient to create a dispute on that point. As discussed above, Dr. Keramida opines that the mitigation systems installed in those homes are not sufficient to eradicate the danger posed by vapor intrusion. The Court agrees that "Murphy's law" is not sufficient to establish an endangerment where a party relies only on speculation that mitigation measures might fail, *Tilot Oil, LLC v. BP Prods. N. Am., Inc.*, 907 F. Supp. 2d 955, 966 n.15 (E.D. Wis. 2012), but Dr. Keramida's opinion is not so limited. She first noted in general that mitigation systems are subject to failure, either through mechanical faults or other problems like a power failure or damage. But she also opined that the systems installed in these particular homes are deficient. She opines that they were not designed, installed, or operated

appropriately and that it is not possible to tell whether they are working properly. Moreover, multiple systems have experienced interruptions at some point, and TCE was detected in two of the homes even after the systems were installed (albeit in smaller amounts). A contractor who worked on one of those systems wrote after completing the job, "I cannot guarantee this will work and there will be no charge for this revision." [DE 289-37]. In light of that evidence, the Court concludes that there is a dispute of fact as to whether an imminent and substantial endangerment may still exist even with the mitigation systems.[24]

The sampling that has been performed since the vapor mitigation systems were installed does not foreclose a finding that an endangerment still exists, either. First, due to the temporal and spatial variability of vapors, a test could fail to detect harmful vapors even though they are still present in other areas or will be present at other times. And second, the properties with mitigation systems have not been consistently tested. Most of those homes have been tested only twice since the systems were installed: once in 2011, then not again until 2018. A more rigorous set of sampling data might suffice to establish that vapors have not been present in the homes, but the Court cannot conclude that these limited tests do so conclusively enough to warrant summary judgment. At trial the Court will have the ability to weigh the competing evidence as to the effectiveness of the mitigation systems and the degree of any risk, but the Court cannot do so at summary judgment.

The Plaintiffs have also offered sufficient evidence that the endangerment posed by vapor intrusion at the levels previously measured could qualify as "substantial." Dr. Keramida opined

[24] The plaintiffs here are not "the neighborhood," but rather five individuals connected to three particular properties. The parties' filings do not address whether the Plaintiffs' claim can be based on a risk to other properties in the neighborhood, but the Court need not reach that issue now, as this evidence is relevant at least to the extent it illustrates the risks that may be present in the Plaintiffs' properties.

that the levels of TCE that have been found in indoor air create an unacceptable health risk, by comparing them to EPA screening levels. She opines that those levels are an appropriate benchmark because they are set based on the agency's research and expertise in determining levels at which health risks are unlikely to occur. In appropriate circumstances, exceedances of those amounts can thus support an inference that the exposure may create a risk. *Grant*, 505 F.3d at 1022.

The Plaintiffs also argue that the EPA has determined that TCE in indoor air at concentrations above 2 $\mu g/m^3$ can create a risk of birth defects. Johnson Controls vigorously disputes that argument, but at least one EPA region takes that risk serious enough that it recommends that mitigation measures to be "implemented quickly and their effectiveness . . . confirmed promptly" if indoor air concentrations exceed 2 $\mu g/m^3$. [DE 289-10]. And when the concentration of TCE exceeds 6 $\mu g/m^3$, it recommends an "urgent response," with mitigation measures being initiated immediately and their effectiveness confirmed "before any additional exposure is allowed to occur," meaning residents may have to be temporarily relocated. By comparison, TCE has been measured in indoor air at 100 $\mu g/m^3$ in the Schmucker's home, about 18 $\mu g/m^3$ in the VanDiepenbos' home, and over 5 $\mu g/m^3$ in Mr. Stewart's home. Other homes in the neighborhood had similar levels.

Johnson Controls argues in response that these action levels are disputed even within the EPA and have been rejected by most state agencies, including IDEM. Applicable state standards do not define liability under subsection (a)(1)(B), though; the point is not whether Johnson Controls is complying with the governing agency's standards, but whether contamination at those levels may present a substantial endangerment. *Interfaith*, 399 F.3d at 260–61. And at summary judgment, that disagreement only creates a dispute; it does not permit the Court to

reject this evidence. Johnson Controls also argues that the Plaintiffs are relying only on attorney argument to offer materials that require interpretation by experts. However, it was the EPA Region 9 that examined the research and recommended an "urgent response" to prevent exposure to concentrations at that level. The Plaintiffs are not relying on counsel's own assessment of the underlying studies, but on the conclusions that the EPA region drew and the actions it recommended in response. The Court believes that the EPA region's assessment of the potential risks posed by those levels of TCE is sufficient to create a question of fact as to whether exposure to these concentrations may present an imminent and substantial endangerment.

Johnson Controls also argues that summary judgment is warranted because the Plaintiffs have offered no evidence as to what injunctive relief would be appropriate should they succeed in proving an endangerment. The Court disagrees. Dr. Keramida has identified remediation strategies that she believes would eliminate the contamination giving rise to the endangerment. Johnson Controls argues that her suggestions are infeasible because they would require too many injection wells to be installed or too many truckloads of soil to be removed. But the Court is not limited to an all-or-nothing decision in deciding whether to adopt her proposed remedies—the Court could find, for example, that a technique is appropriate but that it should be employed over a smaller area. In addition, the parties are in heated agreement at least in part as to what remedial activities should occur. Dr. Keramida opines that Johnson Controls should use enhanced reductive dechlorination injections to remediate the contamination in the shallow groundwater. Johnson Controls has used that same technique in a pilot test, and has proposed expanding its use of that technique within the site. [DE 292 p. 25 (noting that "one of [Dr. Keramida's] ideas—in-situ reductive dechlorination (ERD)—is something [Johnson Controls] is already doing under IDEM's oversight")]. The dispute in that respect appears to be over only the size of the area in

which Johnson Controls should use that technique. Accordingly, the Court finds that the Plaintiffs have offered enough evidence to survive summary judgment on that issue. The Court therefore denies Johnson Controls' motion as to this claim.

2. The Plaintiffs' Motion for Summary Judgment

The Plaintiffs also moved for summary judgment in their favor. They argue that it is beyond dispute that the contamination may present an imminent and substantial danger in multiple respects. They argue that the contamination undisputedly presents a danger to the environment through its presence in groundwater, and that it presents a danger to health through its potential to reach the city's wellfield, its ability to enter homes through vapor intrusion, and the possibility that people may use private wells drawing contaminated water.

In reviewing the Plaintiffs' motion, the Court views the facts in the light most favorable to Johnson Controls and draws all reasonable inference in its favor. Under that standard, summary judgment is unwarranted, as Johnson Controls has offered evidence disputing the Plaintiffs' positions on each of those points. That includes expert opinions attesting that the contamination will not reach the wellfield; that the homes are safe from vapor intrusion, either because they are not at risk of vapor intrusion or because any risk has been obviated by mitigation systems, and because the levels of contamination are not significant enough to endanger human health anyway; and that no other receptors, including any parts of the environment, are endangered by the contamination. Johnson Controls further offers reasons why the evidence upon which the Plaintiffs rely to support their claim should not be credited. The Court need not belabor each of those points individually, but finds that genuine disputes of material fact preclude summary judgment in the Plaintiffs' favor.

The only argument the Plaintiffs offer that warrants discussion at this point is that the mere existence of contamination in groundwater constitutes an imminent and substantial

endangerment to the environment. If that premise were sound, then the undisputed existence of contamination could warrant summary judgment in their favor. The Court does not accept that categorical premise, though. There is no question that an endangerment to the environment can sustain a subsection (a)(1)(B) claim, even without any effect on human health. 42 U.S.C. § 6972(a)(1)(B) (applying to hazardous waste that "may present an imminent and substantial endangerment to health *or the environment*." (emphasis added)); *Interfaith*, 399 F.3d at 259. There is a difference, though, between contamination that happens to be present in the environment, and contamination that may present an imminent and substantial endangerment to the environment. *Avondale*, 170 F.3d at 695 (affirming summary judgment despite the undisputed existence of contamination that could be harmful, as any danger posed by the contamination was not imminent). Subsection (a)(1)(B) only addresses the latter scenario. It is preventative, and allows courts to order relief to keep those risks from coming to pass; it does not transfer oversight of all environmental remediation from the state and federal agencies to the federal courts.[25] *Tilot Oil, LLC v. BP Prods. N. Am., Inc.*, 907 F. Supp. 2d 955, 968 (E.D. Wis. 2012) (rejecting the argument—identical to the Plaintiffs' argument here—that groundwater contamination constitutes an imminent and substantial endangerment *per se*); *Sullins v. Exxon/Mobil Corp.*, No. 08-04927, 2011 WL 8077086, at *6 (N.D. Cal. Jan. 26, 2011) (granting summary judgment against the plaintiffs where "the plaintiffs proved that there was substantial contamination on their property, but failed to prove that the contamination was likely to cause harm to someone or something"); *Foster v. United States*, 922 F. Supp. 642, 662 (D.D.C. 1996) ("In contrast to the CERCLA, which requires only a showing that a release of hazardous

[25] To the extent the Plaintiffs rely on the existence of contamination in groundwater in particular, there is no statutory basis for giving such solicitude to groundwater as compared to any other aspect of the environment.

substance has occurred, 42 U.S.C. § 6972(a)(1)(B) requires more than a mere showing that solid or hazardous wastes are present at the Site."). By contrast, the agencies have authority to impose corrective action if there "has been a release of hazardous waste into the environment," even if it does not present an imminent and substantial endangerment. 42 U.S.C. § 6928(h).

There are many ways in which the existence of contamination could pose such an endangerment to health of the environment. Contaminated groundwater could endanger health if it is used as drinking water or otherwise comes into contact with people, such as through vapor intrusion. *See PMC, Inc. v. Sherwin-Williams Co.*, 151 F.3d 610, 618 (7th Cir. 1998) ("[T]he buried wastes contain lead that is a constant danger to the groundwater, so that some leaning up is necessary in the interest of health[.]"); *LAJIM*, 2015 WL 9259918, at *12; *United States v. Apex Oil Co.*, No. 05-cv-242, 2008 WL 2945402, at *80 (S.D. Ill. July 28, 2008). The contamination could also pose a threat to the environment if it is migrating and threatens to endanger other environmental sources. *Compare Interfaith*, 399 F.3d at 263, *LAJIM*, 2015 WL 9259918, at *12 (finding a threat where the contamination was migrating), *and Apex Oil*, 2008 WL 2945402, at *80 (finding a threat to the environment "because contaminated groundwater at the Site is very close to the Mississippi River and it could migrate westward and contaminate the River") *with Avondale*, 170 F.3d at 695, *Birch Corp. v. Nev. Inv. Holding, Inc.*, 152 F.3d 924 (table), 1998 WL 442982, at *3 (9th Cir. 1998) (finding no threat to the environment, despite the presence of contamination exceeding regulatory cleanup levels, because the contamination was stable and threatened no future harm), *and Foster*, 922 F. Supp. at 662 (granting summary judgment due to the absence of an imminent and substantial endangerment, despite the presence of contamination). The contamination could also present an endangerment if it harms wildlife or organisms in the environment. *Interfaith*, 399 F.3d at 262.

Contamination does not create an endangerment by its mere presence, though, and there is a dispute of fact as to whether the contamination here poses any of those dangers. Construing the facts in the light most favorable to Johnson Controls, the threat of vapor intrusion has been obviated by vapor mitigation systems, and the homes in the area are connected to municipal water, so the residents will not be exposed to contaminated groundwater. Nor, according to Johnson Controls, will the contamination ever reach the city's wellfield. If no one will be exposed to the contamination in harmful levels, it does not pose a threat to health. Though contamination need not currently be causing harm to support an endangerment claim, it threatens no endangerment if there is no likelihood of exposure. *Avondale*, 170 F.3d at 695; *Crandall*, 594 F.3d at 1238–39; *Mallinckrodt*, 471 F.3d at 288; *Tilot Oil*, 907 F. Supp. 2d at 965–66. Johnson Controls has also offered evidence that the contamination does not threaten any environmental sources, such as a nearby creek or ponds, or other ecological receptors like plants or wildlife. In short, Johnson Controls has offered evidence that the existing contamination threatens no secondary effects. Absent such an imminent and substantial endangerment, the mere presence of contamination in the environment does not support a subsection (a)(1)(B) claim. Therefore, the Court denies the Plaintiffs' motion for summary judgment on this claim, which will proceed to trial.

V. CONCLUSION

To summarize, this action remains pending as to the subsection (a)(1)(B) endangerment claim, but summary judgment is warranted in favor of Johnson Controls on the subsection (a)(1)(A) violation claim. The Court orders as follows:

- The Plaintiffs' motion for summary judgment [DE 287] is DENIED;
- Johnson Controls' motion for summary judgment [DE 291] is GRANTED as to the subsection (a)(1)(A) claim and DENIED as to the subsection (a)(1)(B) claim;

- Johnson Controls' motion to exclude Dr. Keramida's opinions [DE 271] is DENIED in part and DISMISSED in part with leave to renew at trial;

- Johnson Controls' first motion to strike Dr. Keramida's supplemental report [DE 329] is GRANTED in part and DENIED in part, and its second motion to strike [DE 333] is DENIED.

- Johnson Controls' motion to exclude Dr. Orris' opinions [DE 273] is DISMISSED with leave to renew at trial;

- The Plaintiffs' motion to exclude Johnson Controls' experts' opinions [DE 281] is DENIED;

- Johnson Controls' motion for leave to file a surreply [DE 307] is DENIED;

- Johnson Controls' motion to strike [DE 313] is DENIED;

- Johnson Controls' motion for leave to supplement its disclosures [DE 341] is DENIED; and

- The motion to seal [DE 322] is DENIED, so the Clerk is DIRECTED to unseal DE 321.

SO ORDERED.

ENTERED: February 19, 2019

/s/ JON E. DEGUILIO
Judge
United States District Court